



April 25, 2022

**SUBMITTED VIA REGULATIONS.GOV AT
DOCKET ID NO. EPA-R06-OAR-2021-0801**

Sherry Fuerst
Environmental Engineer
EPA - Region 6
1201 Elm Street
Dallas, TX 75270
fuerst.sherry@epa.gov

**Re: EPA-HQ-OAR-2021-0663, Comments re EPA 2016v2 DVs State Contributions,
EPA-HQ-OAR-2021-0063-0012**

Dear Ms. Fuerst:

Thank you for the opportunity to offer public comments regarding EPA's recent regional ozone transport modeling efforts using the 2016v2 modeling platform. WildEarth Guardians offers these comments to identify areas of concern where EPA's modeling results project unrealistically large declines in ozone pollution levels from the high levels that have been seen over the past few years. Guardians is particularly concerned that these rosy projections fail to account for the significant challenge facing EPA and the States of Texas and New Mexico in addressing emissions of ozone precursor pollutants from the oil and gas industry. Accordingly, Guardians requests that the EPA revisit its assumptions regarding emissions from the oil and gas industry – particularly in the booming Permian Basin – to ensure that its modeling efforts provide a realistic projection of ozone pollution levels at sites significantly impacted by such emissions.

1. EPA Modeling Determinations re Southeast New Mexico Monitors

As an initial matter, EPA either chose not to model or not to report modeled results for future year design values for some monitors in New Mexico, including the monitors in Eddy and Lea Counties. Our understanding is that this may be because EPA modeling of the 2016 base year did not result in greater than or equal to five modeled maximum daily average 8-hour ("MDA8") ozone concentrations in excess of 60 parts per billion (ppb) at these monitor sites. We request that EPA confirm exactly why it chose not to model future year design values for

monitors in New Mexico. In so doing, we request EPA provide the MDA8 ozone concentrations it modeled for the 2016 base year for the Eddy County and Lea County monitors in New Mexico.

If EPA's modeled 2016 base year did not produce greater than or equal to five MDA8 ozone concentration greater than 60 ppb at certain New Mexico monitors, such as those in Carlsbad and Hobbs, we also ask that EPA explain why it considers this modeling accurate or representative of ozone conditions in these areas. Given actual monitoring data, any model that fails to produce at least five MDA8 ozone concentrations in Eddy and Lea Counties in 2016 likely contains significant flaws. For the past seven years, the monitors in Eddy County and Lea County have consistently recorded 8-hour ozone concentrations well above 60 ppb.¹

Carlsbad, NM 8-Hour Ozone Readings (ppm), 2015-2021

AQS ID: 350151005

	2015	2016	2017	2018	2019	2020	2021
1 st Max.	0.069	0.065	0.082	0.096	0.095	0.075	0.092
2 nd Max.	0.068	0.064	0.078	0.095	0.092	0.075	0.082
3 rd Max.	0.067	0.064	0.077	0.091	0.084	0.075	0.08
4 th Max.	0.067	0.063	0.076	0.083	0.080	0.073	0.08
Number of Days Above NAAQS	0	0	10	18	19	5	23

Carlsbad Caverns National Park 8-Hour Ozone Readings (ppm), 2015-2021

AQS ID: 350150010

	2015	2016	2017	2018	2019	2020	2021
1 st Max.	0.068	0.070	0.069	0.099	0.082	0.074	0.085
2 nd Max.	0.068	0.069	0.065	0.081	0.080	0.074	0.08
3 rd Max.	0.065	0.069	0.065	0.080	0.078	0.073	0.079
4 th Max.	0.065	0.069	0.065	0.080	0.074	0.072	0.077
Number of Days Above NAAQS	0	0	0	10	6	9	15

Hobbs, NM 8-Hour Ozone Readings (ppm), 2015-2021

AQS ID: 350250008

	2015	2016	2017	2018	2019	2020	2021
1 st Max.	0.070	0.069	0.080	0.083	0.082	0.062	0.086
2 nd Max.	0.069	0.066	0.074	0.078	0.075	0.06	0.075
3 rd Max.	0.069	0.065	0.072	0.077	0.073	0.06	0.072
4 th Max.	0.067	0.065	0.069	0.076	0.070	0.06	0.068
Number of Days Above NAAQS	0	0	3	6	3	0	3

¹ Ozone monitoring data obtained from the U.S. Environmental Protection Agency's AirData website, <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>.

Moreover, for the 2016 base year, EPA’s excel file at Docket ID: EPA-HQ-OAR-2021-0663-0013 identified 10 observed days exceeding 60 ppb at the City of Carlsbad monitor, 23 observed days exceeding 60 ppb at the Carlsbad Caverns National Park monitor, and 13 observed days exceeding 60 ppb at the City of Hobbs monitor.

We request EPA help us fully understand its rationale for not modeling future year emissions at these monitors and conducting the associated state contribution analysis. If it is the case that EPA’s model does not generate greater than or equal to five MDA8 ozone concentrations at these monitors, we further request EPA evaluate why its modeling protocol is generating such divergent results compared to actual monitoring data. We further ask that EPA explain its rationale for not modeling future year emissions at these monitors given the dramatic increase in ozone design values since 2016, as presented below.

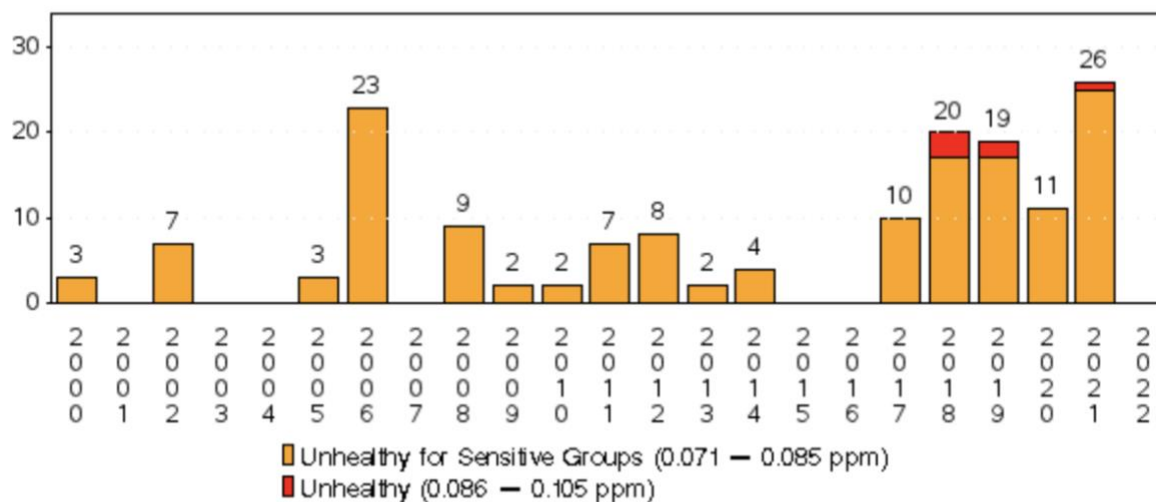
As we discuss further below, EPA explained in the Technical Support Document (“TSD”) for the EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal that it would not expect ozone design values to decrease by more than 0-1 ppb per year.² As such, the 2020 and 2021 design values in Southeast New Mexico suggest that monitors in this area will likely see 2023 ozone design values that exceed the 2015 ozone NAAQS and, thus, warrant future year modeling and state contribution analysis to determine whether upwind states are inappropriately causing or contributing to ozone violations.

**8-Hour Ozone Design Values for Lea and Eddy County, New Mexico Monitoring Sites
(ppb)**

County	AQS ID	2015- 2017 Design Value	2016- 2018 Design Value	2017- 2019 Design Value	2018- 2020 Design Value	2019- 2021 Design Value
Lea	350250008	67	70	71	68	66
Eddy	350151005	68	74	79	78	77
Eddy	350150010	66	71	73	75	74
Dona Ana	350130021	71	74	77	78	80
Dona Ana	350130022	72	74	76	74	75

² U.S. Environmental Protection Agency, Feb. 2022. EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document, Docket ID: EPA-R06-OAR-2021-0801-0002 at 13, 38, 44.

Number of Days 8-hr Ozone Daily Max > 0.070 ppm 2000-2022 in Eddy County, NM



Note: Based on ALL sites
Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>
Generated: March 23, 2022

We request EPA explain exactly what legal, regulatory, or guidance provisions – if any – prohibit EPA from including Southeast New Mexico monitors from its ozone transport modeling and analysis. Absent future year modeling, EPA effectively has identified the monitors in Southeast New Mexico as attainment rather than as nonattainment or maintenance receptors. This constructive determination plainly contradicts the current ozone concentrations and design values and trends, and violates the Clean Air Act.

2. EPA Modeled 2023 Design Values

While EPA’s latest ozone modeling appears to more accurately project future year ozone design values than past EPA ozone modeling iterations, EPA’s modeling continues to project unusually and unrealistically high declines in ozone design values (“DVs”) by 2023, particularly at monitors in states with significant oil and gas activity, such as Colorado and Texas. We are concerned that EPA’s modeled 2023 design values underestimate future 2023 design values and, as a result, fail to properly identify nonattainment and maintenance receptors.

EPA compared recent monitoring values and reasonably anticipated decreases in ozone design values on the order of approximately 0-1 ppb/yr (i.e. at most 3-4 ppb from 2020-2023) both within Texas and in other parts of the country.³ Based on this and other analysis, EPA determined that monitors with 2020 design values 4 to 7 ppb above the NAAQS and preliminary 2021 design values 1 to 5 ppb above the NAAQS are unlikely to attain the NAAQS and would

³ *Id.*

likely need even more ozone DV decreases to not be considered a maintenance receptor.⁴ Drops in 8-hour ozone DVs on average of 7 ppb or more in three years at multiple monitors in this Colorado Front Range area and drops in 8-hour ozone DVs on average of 7.56 ppb or more in three years at many monitors in the Texas area would not typically be expected to occur unless there is an unexpectedly large change in emissions and/or large change in meteorological conduciveness for ozone generation.⁵ And yet, EPA's own modeling continues to forecast 2023 design values that would require ozone to decline by levels well beyond 3 to 4 ppb without identifying any corresponding large emission reductions not already accounted for in the modeling to be implemented in the 2021-2023 timeframe.⁶ In particular, EPA's modeled 2023 design values in Colorado and Texas in many cases projects even greater design value declines than forecast by the Texas Council of Environmental Quality in its 2015 Ozone Interstate Transport SIP.

Colorado Monitors⁷

***red font** indicates values greater than 4 ppb

****bold red font** indicates values greater than 4 ppb and design value decline greater than TCEQ projection.

AQS ID	County	Monitored 2020 DV	TCEQ 2023 DV	2020 DV minus TCEQ 2023 DV	EPA 2023 Avg	2020 DV minus EPA 2023 Avg
80013001	Adams	69	65	-4	63.2	-5.8
80050002	Arapahoe	77	70	-7	68.4	-8.6
80050006	Arapahoe	71	66	-5	63.7	-7.3
80310002	Denver	70	57	-13	63.9	-6.1
80310002	Douglas	81	73	-8	71.7	-9.3
80590005	Jefferson	71	68	-3	68.0	-3.0
80590006	Jefferson	79	72	-7	72.6	-6.4
80590011	Jefferson	80	71	-9	73.8	-6.2
80690007	Larimer	70	69	-1	64.7	-5.3
80690011	Larimer	75	72	-3	71.3	-3.7
80691004	Larimer	67	65	-2	64.7	-2.3
81230009	Weld	70	70	0	65.9	-4.1

⁴ *Id.* at 72.

⁵ *Id.* at 41, 50.

⁶ *See id.*

⁷ Future year design values obtained from EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document, Docket ID: EPA-R06-OAR-2021-0801-0002, and EPA's 2016v2 DVs State Contribution excel file, Docket ID: EPA-HQ-OAR-2021-0663-0012.

Texas Monitors

***red font** indicates values greater than 4 ppb

****bold red font** indicates values greater than 4 ppb and design value decline greater than TCEQ projection.

County	AQS ID	Monitored 2020 DV	TCEQ 2023 DV	2020 DV minus TCEQ 2023 DV	EPA 2023 Avg	2020 DV minus EPA 2023 Avg
Brazoria	480391004	73	78	5	70.1	-2.9
Brazoria	480391016	65	60	-5	58.8	-6.2
Collin	480850005	75	66	-9	66.2	-8.8
Dallas	481130069	69	64	-5	64.9	-4.1
Dallas	481130075	74	63	-11	65.9	-8.1
Dallas	481130087	69	61	-8	57.7	-11.3
Denton	481210034	72	68	-4	70.4	-1.6
Denton	481211032	72	66	-6	67.2	-4.8
Ellis	481390016	64	60	-4	57.8	-6.2
Galveston	481671034	74	67	-7	71.1	-2.9
Harris	482010024	79	68	-11	75.2	-3.8
Harris	482010026	69	66	-3	65.2	-3.8
Harris	482010029	73	67	-6	65.6	-7.4
Harris	482010046	64	66	2	63.6	-0.4
Harris	482010047	72	69	-3	68.3	-3.7
Harris	482010051	70	68	-2	65.4	-4.6
Harris	482010055	76	68	-8	71.0	-5.0
Harris	482010062	67	72	5	60.9	-6.1
Harris	482010066	69	68	-1	69.1	0.1
Harris	482010416	73	72	-1	69.1	-3.9
Harris	482011015	67	64	-3	62.0	-5.0
Harris	482011034	73	71	-2	70.3	-2.7
Harris	482011035	70	68	-2	68.0	-2.0
Harris	482011039	78	74	-4	66.3	-11.7
Harris	482011050	70	68	-2	66.6	-3.4
Johnson	482510003	73	62	-11	66.4	-6.6
Montgomery	483390078	74	64	-10	67.6	-6.4
Tarrant	484390075	75	65	-10	64.4	-10.6
Tarrant	484391002	72	63	-9	64.8	-7.2
Tarrant	484392003	73	66	-7	66.6	-6.4
Tarrant	484393009	76	68	-8	68.0	-8.0
Tarrant	484393011	69	62	-7	59.8	-9.2

The significant design value reductions EPA anticipates in 2023 resulted in EPA's failure to identify (and/or correctly identify) monitors as nonattainment or maintenance receptors for purposes of ozone transport analysis. Examples of such monitors include but are not limited to the monitors identified in the table below.

Table of Monitors That Likely Qualify as Nonattainment or Maintenance Receptors According to the Good Neighbor Provision Framework

State	County	AQS ID	Monitored 2020 DV	TCEQ 2023 DV	2020 DV <i>minus</i> TCEQ 2023 DV	EPA 2023 Avg	Monitored 2021 DV
CO	Arapahoe	80050002	77	70	-7	68.4	80
NM	Eddy	350151005	78	68	-10	Omitted	77
NM	Dona Ana	350130021	78	66	-12	70.9	80
NM	Dona Ana	350130022	74	68	-6	69.5	75
TX	El Paso	481410037	76	67	-9	69.6	75
TX	Collin	480850005	75	66	-9	66.2	75
TX	Harris	482011039	78	74	-4	66.3	74
TX	Tarrant	484390075	75	65	-10	64.4	75

We request EPA explain the basis for why it is reasonable to expect ozone design value declines of these magnitudes at these and other monitoring sites that recorded 2020 or 2021 design values greater than or equal to 74 ppb.

We also request EPA incorporate modeling parameters into its ozone model that appropriately cap the amount by which ozone design values decline per year, according to EPA's analysis in its TSD for the EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal.⁸ After incorporating these modeling parameters, we request EPA re-run its ozone transport model to identify more representative and realistic future year design values. If EPA declines this request, we request EPA explain the basis for its decision.

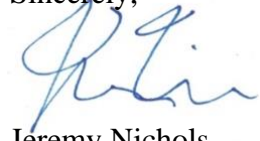
Lastly, we request EPA conduct a comparative analysis of past EPA ozone modeling projections and the actual observed design values to determine whether EPA ozone modeling tends to overestimate or underestimate future year design values. If EPA finds that the agency's models tend to underestimate future year design values, we request EPA re-run its ozone modeling, incorporating parameters that account for this tendency. If EPA declines this request, we further request EPA explain the basis for its decision.

Conclusion

Guardians appreciates the opportunity to comment on these important matters and requests EPA thoroughly respond to the comments above. If you have any questions or would like to discuss our comments further, please reach out to me at the contact information below. Thank you for your time and consideration.

⁸ U.S. Environmental Protection Agency, Feb. 2022. EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document, Docket ID: EPA-R06-OAR-2021-0801-0002 at 13, 38, 44.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Nichols', is positioned above the printed name.

Jeremy Nichols
Climate and Energy Program Director
WildEarth Guardians
(303) 437-7663
jnichols@wildearthguardians.org